

## MEDICAL INFORMATION

By using a sensitive radioimmunoassay for TSH, we showed that most patients taking L-thyroxine had undetectable levels. Nearly all normal and untreated euthyroid goitrous patients have detectable circulating levels of TSH with this assay. We agree with Stock and co-workers<sup>5</sup> that the current textbook recommendations for replacement therapy with L-thyroxine are too high. We recommend 0.1 to 0.2 mg of L-thyroxine for replacement therapy. Suppression therapy with this dose range will effectively reduce TSH to undetectable levels in most patients; however, the dose must be individually tailored for each patient.

### Summary

Serum thyroid hormones were measured in patients taking L-thyroxine for replacement or suppressive therapy. Their serum  $T_4$  levels and  $T_4/T_3$  ratios were greater than controls and their serum

$T_3$  levels were normal or slightly increased. This finding was more evident in the euthyroid goitrous group because higher doses of thyroxine were used to suppress TSH secretion. Serum TSH levels were suppressed to undetectable levels in most patients. Replacement therapy for hypothyroidism can be achieved with 0.1 to 0.2 mg of L-thyroxine which will suppress serum TSH to undetectable levels in most patients.

### REFERENCES

1. Braverman LE, Ingbar SH, Sterling K: Conversion of thyroxine ( $T_4$ ) to triiodothyronine ( $T_3$ ) in athyreotic human subjects. *J Clin Invest* 49:855-864, May 1970
2. Braverman LE, Vagenakis A, Downs P, et al: Effects of replacement doses of sodium-L-thyroxine on the peripheral metabolism of thyroxine to triiodothyronine in man. *J Clin Invest* 52:1010-1017, May 1973
3. Chopra IJ: An assessment of daily production and significance of thyroidal secretion of 3,3',5'-triiodothyronine (reverse  $T_3$ ) in man. *J Clin Invest* 58:32-40, Jul 1976
4. Azukizawa M, Pekary AE, Hershman JM, et al: Plasma thyrotropin, thyroxine, and triiodothyronine relationships in man. *J Clin Endocrinol Metab* 43:533-542, Sep 1976
5. Stock JM, Surks MI, Oppenheimer JH: Replacement dosage of L-thyroxine in hypothyroidism. *N Engl J Med* 290:529-533, Mar 1974

## Herpes Zoster Keratouveitis

YOU SHOULD ALL REMEMBER that those who have herpes zoster keratouveitis in the older age group may very well have an underlying malignancy, and that should be looked for.

—PETER R. LAIBSON, MD, Philadelphia

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